

REMARKS

Status of the claims

Claims 57, 68-71, 87-91, 93 and 96-102 are pending as shown in the paper filed February 26, 2008 and claims 57, 66, 68-71 and 87-90 are under active examination. Inasmuch as withdrawn claims 91, 93, and 96-102 contain all of the limitations of the elected composition claims, they are eligible for rejoinder upon allowance of the claims under consideration.

Rejections Withdrawn

The obvious-type double patenting rejections and rejections under 35 U.S.C. § 102 over U.S. Patent Nos. 7,026,467 and 7,163,824 have been withdrawn.

Obviousness-type double patenting

The Advisory Action again reiterated the rejection of the examined claims under the judicially created doctrine of obviousness-type double patenting over 25 different U.S. Patents on the grounds that the claimed complexes "could have been claimed in the other applications." (Advisory Action, page 2).

In fact, the claimed complexes were not claimed in the 25 cited patents, which were all filed and issued only with method claims. Moreover, the claimed complexes could not have been claimed in these patents, as the claims require that the zinc finger protein bind to an accessible region in cellular chromatin – which is neither disclosed nor inherent in the cited patents.

Applicants also take issue with the Examiner's assertion that they do not even know what an accessible region is. As repeatedly noted throughout the specification and during prosecution, an accessible region is one which reacts differently to a probe of chromatin structure as compared to bulk chromatin. See, e.g., page 13, lines 11-14. The 25 cited patents do not in any way disclose or render obvious complexes as claimed and, indeed, evidence has been presented showing that the zinc finger proteins used in these methods form complexes with non-accessible regions. Thus, the rejection is improper.

Nonetheless, to expedite prosecution, submitted herewith is a Terminal Disclaimer over the cited patents. Applicants direct the Examiner's attention to § 802.04 of the MPEP where it is clearly stated that the filing of a terminal disclaimer is not an admission that the rejection is proper:

The filing of a terminal disclaimer to obviate a rejection based on nonstatutory double patenting is not an admission of the propriety of the rejection. *Quad Envi-ronmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). The court indicated that the "filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither a presumption nor estoppel on the merits of the rejection."

Thus, the rejections have been obviated, the withdrawn claims should be rejoined and examined and all claims proceed to allowance.

35 U.S.C. § 102

The Advisory Action also reiterated the rejections based on the same patents cited above for double-patenting. (Advisory Action, page 2).

As a threshold matter, Applicants note that the Advisory Action did not address the Declaration of Inventorship by Dr. Casey Case, which removed U.S. Patent Nos. 7,220,719; 7,163,824; 7,013,219; 6,979,539; 6,933,113; 6,824,978; 6,689,558; 6,607,882; and 6,534,261 as references by establishing that any subject matter disclosed but not claimed in these patents was derived from the inventors of this application and, therefore, is not the invention of another.

With regard to the remaining references, it remains that case that U.S. Patent Nos. 7,235,354; 7,177,766; 7,045,304; 6,989,269; 6,785,613; 6,780,590; 6,777,185; 6,599,692; and 6,453,242 are all silent as to complexes in which the zinc finger proteins are necessarily and inevitably bound to an accessible region of cellular chromatin.

As repeatedly noted throughout prosecution, the term "accessible region" of cellular chromatin is clearly defined as a region which is not packaged in nucleosomes in the same way as bulk chromatin and, consequently, exhibits altered reactivity to a probe of chromatin structure as compared to bulk chromatin. See, e.g., page 13, lines 11-14.

Furthermore, as is apparent in reviewing the prosecution history, Applicants know exactly what is meant by an accessible region and have tried in various ways to satisfy the Examiner by reciting these limitations in the claims.

In any event, anticipation requires that every limitation of the claim at issue must appear identically in a single reference. *In re Bond*, 910 F.2d 831, 832, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990). Inherent anticipation cannot be established by probabilities or possibilities (see, *Continental Can Co. USA, Inc. v. Monsanto Co.*, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991):

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

Thus, in the instant case, the burden is on the Examiner to show that the cited references teach cells in which the engineered zinc finger protein is necessarily and inevitably bound to accessible regions of cellular chromatin.

U.S. Patent Nos. 7,235,354; 7,177,766; 7,045,304; 6,989,269; 6,785,613; 6,780,590; 6,777,185; 6,599,692 are silent as to accessible regions entirely. Thus, these references also fail to show that their engineered zinc finger proteins are necessarily and inevitably bound to an accessible region of cellular chromatin. Rather, as demonstrated in Zhang et al. (Ref. C5 of IDS filed August 22, 2006 and considered November 10, 2006), engineered zinc finger proteins as disclosed in the references have been shown to form complexes with non-accessible regions of cellular chromatin. In addition, as previously noted, Wong et al. (1997) (Exhibit A of Response filed July 6, 2005 and Ref C4 of IDS filed August 22, 2006 and considered November 10, 2006) and Cirillo et al. (1998) (Exhibit B of Response filed July 6, 2005 and Ref C1 of IDS filed August 22, 2006 and considered November 10, 2006) establish that naturally occurring transcription factors also do not necessarily bind to accessible regions of cellular chromatin.


Thus, it has not been shown to be inherent in these references that any engineered zinc finger protein will necessarily and inevitably be bound to an accessible region of cellular chromatin, as claimed.

CONCLUSION

For the reasons set forth herein, allowance of the claims under consideration, and rejoinder and allowance of the withdrawn claims, are requested.

Respectfully submitted,

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